



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/241,450	02/02/1999	JOHN O. RUID	1-8380	8758

8933 7590 06/17/2005

DUANE MORRIS, LLP
IP DEPARTMENT
ONE LIBERTY PLACE
PHILADELPHIA, PA 19103-7396

EXAMINER

RUDDOCK, ULA CORINNA

ART UNIT	PAPER NUMBER
----------	--------------

1771

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/241,450

Applicant(s)

RUID ET AL.

Examiner

Ula C. Ruddock

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 29 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 29-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 29-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Examiner has carefully considered Applicant's present response filed March 29, 2005. The rejections in view of Horner, Jr. et al. have been overcome. However, after an updated search, additional prior art has been found which renders the invention as currently claimed unpatentable for reasons herein below.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. Claims 1-9 and 29-41 rejected under 35 U.S.C. 103(a) as being unpatentable over Green et al. (US 5,397,631). Green et al. disclose a coated fibrous mat faced gypsum board resistant to water and humidity. The boards are used in insulating systems (col 11, ln 28-30). The gypsum board is faced with a glass fiber mat (col 4, ln 16-17), specifically nonwoven glass mats and is bound together by a resin binder (col 6, ln 20-60). The thickness of the nonwoven glass mat ranges from 10-40 mils, i.e. .01-.04 inches. It is preferred that both surfaces of the core be faced with substantially the same fibrous material (col 6, ln 63-65). A preferred resin that is used in the latex coating is a styrene-acrylic copolymer (col 10, ln 16-17). The thickness of the coating is 4-30 mils, i.e. .1-.76 mm (col 10, ln 43-49). The coating completely covers the glass mat and there is no protrusion of glass fibers through the coating (col 12, ln 57-59). With regard to claims 39 and 41, it should be noted that the Examiner is equating the fibrous mats of Green et al. to be the same as the newly claimed insulation batting. With regard to Applicant's limitation of a "roughly textured

face," it is the Examiner's position that resin bonded glass fibers inherently have a rough surface. Therefore, because the fibrous mat of Green et al. contains a resin binder [0018], it would have a rough surface.

Green et al. disclose the claimed invention except for the teaching that a second web of a nonwoven is on the roughly textured face of the body layer and in which the second web is embedded in the cover layer. Green et al. also fail to disclose Applicant's entire process of making the insulation. Green et al. also fail to disclose that the thickness dimension of the cover layer has a variation of at most 1 mm, that the cover layer extends into the body layer to a distance from the roughly textured face at most about 95% of the thickness dimension, that the second web is a nonwoven having a thickness in the range of about 0.062-0.25 inch, that the body layer has a thickness of about 0.5 to 6 inches and that the body layer has a density of about 1-4 pound per foot³. Green et al. also fail to clearly disclose that the cover layer has a thickness dimension which is substantially uniform and in which the cover layer is permanently embedded into the body layer from the roughly textured face to a depth less than the thickness dimension.

It would have been obvious to have placed a second nonwoven web on top of Green's nonwoven web, motivated by the desire to create an insulation system that provides enhanced insulative effects.

It is not seen how Applicant's method of making the insulation composite significantly affects the chemistry or structure of the insulation composite itself. It is the examiner's position that the insulation material of Green et al. is identical to or only slightly different than the claimed insulation composite prepared by the method of the claims, because both insulation material

comprises a first and second nonwoven fiberglass layer and a cured acrylic coating having a thickness of 1 millimeter. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or an obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show unobvious differences between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289, 292 (Fed. Cir. 1983). The Green et al. reference either anticipates or strongly suggests the claimed subject matter. In the event any difference can be shown for the insulation material of the product-by process of claims 29 and 38, as opposed to the product taught by the Green et al. reference, such differences would have been obvious to one of ordinary skill in the art as a routine modification of the product in the absence of a showing of unexpected results.

It should be noted that optimizing the coating thickness variation, the percentage of coating in the nonwoven mat, the thickness of the nonwoven webs, and the density of the body layer are result effective variables. For example, the smaller the coating thickness variation greatly enhances the aesthetic value of the insulation board and decreases the chance of delamination. Furthermore, the greater the thickness of the nonwoven directly affects the strength of the entire composite. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have used a cover layer having a thickness dimension variation of at most 1 mm, a cover layer that extends into the body layer to a distance from the roughly textured

face at most about 95% of the thickness dimension, a second nonwoven web having a thickness in the range of about 0.062-0.25 inch and a first nonwoven web having a thickness of about 0.5 to 6 inches, and a body layer having a density of about 1-4 pound per foot³, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have optimized these claimed measurements motivated by the desire to obtain an insulating composite that has enhanced aesthetics, decreased delamination, and increased strength and durability.

With regard to Applicant's disclosure of a "nonwoven of wet laid glass fiber," it has been held that the method of forming a product is not germane to the issue of patentability of the product itself. Therefore, this limitation has not been given any patentable weight.

With regard to Applicant's limitation that the cover layer has a thickness which is substantially uniform and in which the cover layer is permanently embedded into the body layer from the roughly textured face to a depth less than the thickness dimension, it is the Examiner's position that it would have been obvious to one having ordinary skill in the art to have made the thickness of the cover layer be substantially uniform and to have permanently embedded the cover layer into the body layer to a depth less than the thickness dimension, motivated by the desire to create an insulating composite that has increased lamination strength.

Response to Arguments

4. Applicant's arguments with respect to claims 1-9 and 29-41 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ula C. Ruddock whose telephone number is 571-272-1481. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H. Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

UCR

UCR

Ula Ruddock
Ula C. Ruddock
Primary Examiner
Tech Center 1700